

### Abstract

A transparent amorphous carbon layer is formed. The transparent amorphous carbon layer has a low absorption coefficient such that the amorphous carbon is transparent in visible light. The transparent amorphous carbon layer may be used in semiconductor devices for different purposes. The transparent amorphous carbon layer may be included in a final structure in semiconductor devices. The transparent amorphous carbon layer may also be used as a mask in an etching process during fabrication of semiconductor devices.